

Upgrading Your Nomad Environment



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Overview



- **Explore what components to upgrade**
- **Understand upgrade and rollback scenarios**
- **Learn about job behaviors during upgrade**
- **Upgrade our demo environment**

What is Needed to Upgrade Nomad?

Upgrading Nomad

Upgrade Dependencies

Prepare the overall environment

Reschedule Active Jobs and Tasks

Ensure jobs and tasks are ready for upgrade

Upgrade Nomad Environment

Upgrade the Nomad core platform

What is Needed to Upgrade Nomad?

Five Step Upgrade Process



Download the new Nomad binary



Drain node and mark as ineligible



Replace Nomad binary



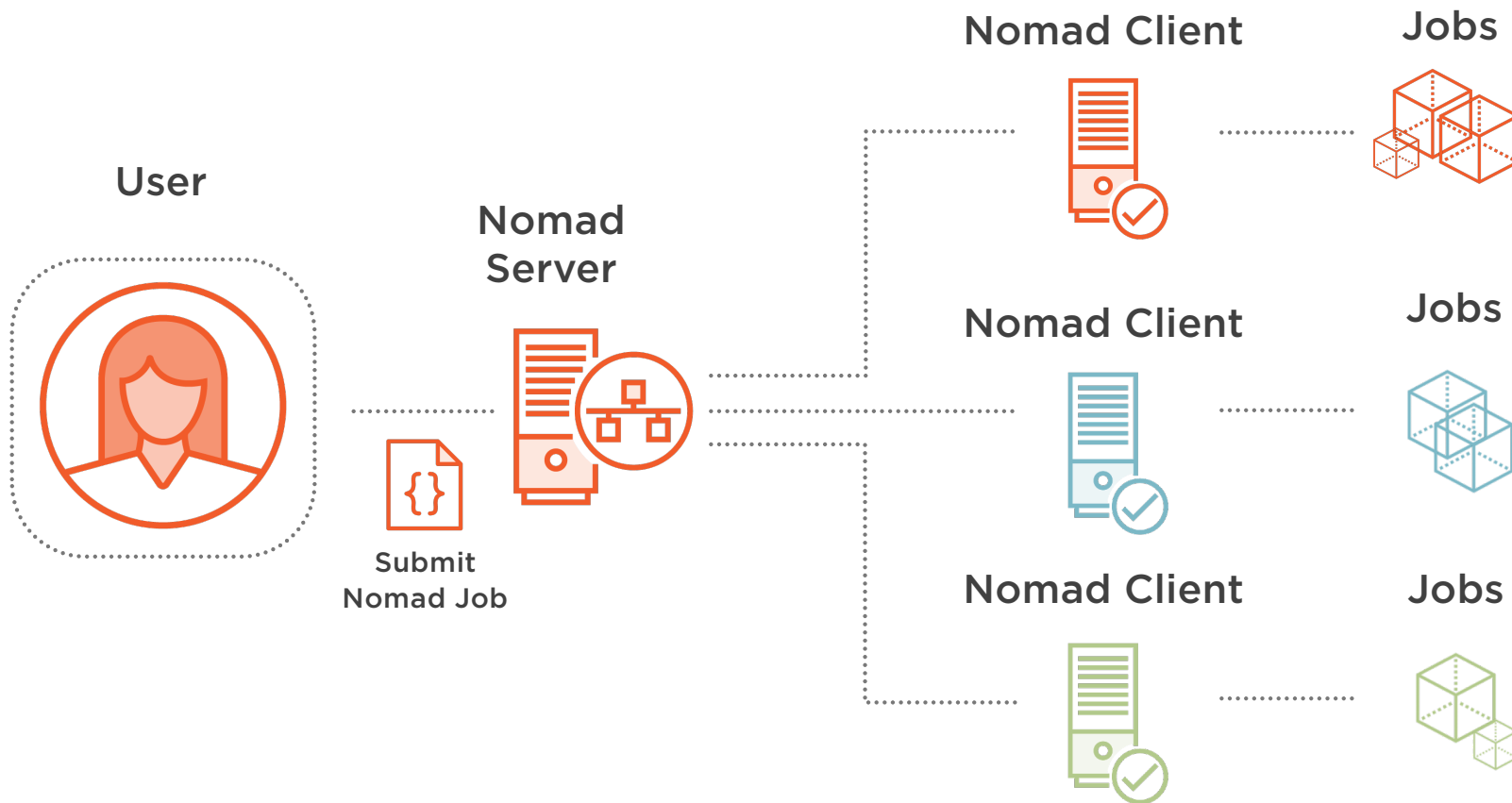
Restart Nomad service



Confirm version and mark node as eligible

Managing Jobs During a Nomad Upgrade

Nomad Job Workflow



Upgrading Nomad

Confirm Member Health and Nomad Version

nomad server members

Name	Address	Port	Status	Leader	Protocol	Build	Datacenter	Region
node1	10.0.0.100	4648	alive	false	2	1.0.0	dc-aws-1	region-aws-1
node2	10.0.1.100	4648	alive	false	2	1.0.0	dc-aws-1	region-aws-1
node3	10.0.2.100	4648	alive	true	2	1.0.0	dc-aws-1	region-aws-1

Check Log Consistency

nomad agent-info

raft

applied_index = 6007

commit_index = 6007

fsm_pending = 0

last_contact = 0

last_log_index = 6007

last_log_term = 2

last_snapshot_index = 63

last_snapshot_term = 2

latest_configuration = [{Suffrage:Voter
ID:10.0.2.100:4647 Address:10.0.2.100:@@@

Drain the Nomad Node

```
nomad node drain -self -enable
```

```
2021-04-11T20:09:44Z: Ctrl-C to stop monitoring: will not cancel the node drain
```

```
2021-04-11T20:09:44Z: Node "185518d4-005c-751f-b07a-7d32dbda0f32" drain strategy set
```

```
2021-04-11T20:09:46Z: Alloc "2eb64940-5e33-58a5-965a-92420ffa70e2" marked for migration
```

```
2021-04-11T20:09:46Z: Alloc "99b6be8f-49c5-152f-f479-aeca97b5fcdb" marked for migration
```

```
2021-04-11T20:09:46Z: Alloc "4599ad46-a30f-0932-441d-f71907d9bc09" marked for migration
```

```
2021-04-11T20:09:46Z: Alloc "4599ad46-a30f-0932-441d-f71907d9bc09" draining
```

```
2021-04-11T20:09:49Z: Alloc "4599ad46-a30f-0932-441d-f71907d9bc09" status running -> complete
```

Confirm Member Health and Nomad Version

nomad server members

Name	Address	Port	Status	Leader	Protocol	Build	Datacenter	Region
node1	10.0.0.100	4648	alive	true	2	1.0.3	dc-aws-1	region-aws-1
node2	10.0.1.100	4648	alive	false	2	1.0.3	dc-aws-1	region-aws-1
node3	10.0.2.100	4648	alive	false	2	1.0.3	dc-aws-1	region-aws-1

Demo



- Run our pre-upgrade checks
- Upgrade Nomad nodes across the cluster
- Confirm upgrade and job allocations/health

Summary



- Reviewed what needs upgrading
- Walked through upgrade flow
- Did a live upgrade
- Confirmed our cluster and job health

Up Next:

Monitoring Nomad Infrastructure
